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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
GAMBEL, PHILLIP	

ART UNIT	PAPER NUMBER
1644	

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/927,703	LE ET AL.	
	Examiner	Art Unit	
	Phillip Gambel	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5 and 7-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-5, 7-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892) COPY OF RECORD / NO REFERENCES PROVIDED

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☑ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☑ Interview Summary (PTO-413) COPY OF RECORD Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment, filed 2/27/04, has been entered.
Claims 1, 3-5, 7-8 and 11-13 have been amended.
Claims 2 and 6 have been canceled.

Claims 1, 3-5 and 7-13 are pending and being acted upon presently.

2. The text of those sections of Title 35 USC not included in this Action can be found in a prior Action.
This Action will be in response to applicant's arguments, filed 2/27/04.
The rejections of record can be found in the previous Office Action.

3. The filing date of the instant claims is still deemed to be the filing date of the priority application USSN 08/570,674, filed 12/11/95, as the previous priority applications do not support the claimed limitations of the instant application, encompassing methods of treating "psoriasis".

Applicant's relies upon the disclosure of " treating diseases including chronic inflammatory diseases with anti-TNF antibodies in the priority document USSN 07/680,827, filed 3/18/91 in conjunction with Exhibit A (Fauci et al. in Harrisons Principles of Internal Medicine 300, McGraw-Hill 14th Edition, 1998) indicating that psoriasis is a chronic inflammatory disease to support the priority of the instant claims back to USSN 07/680,827, filed 3/18/91.

However, the generic disclosure of treating chronic inflammatory diseases" does not provide sufficient written description for the recitation of the species "psoriasis", even if "psoriasis" was considered a chronic inflammatory condition at the time the invention was made.

The following is noted for applicant's attention.

Limitation of a class, generically disclosed, to a subgenus without any teaching of the subgenus is new matter unsupported by the specification. Ex parte Batchelder, 131 USPQ 38, 39 (1960).

It is noted that entitlement to a filing date does not extend to subject matter which is not disclosed, but would be obvious over what is expressly disclosed. Lockwood v. American Airlines Inc., 41 USPQ2d 1961 (Fed. Cir. 1977).

4. Applicant's amendment, filed 2/27/04, indicates that the biological materials for cA2 have not been publicly deposited.

This appears to be inconsistent with the patented claims set forth in U.S. Patent No. 5,698,195 (Le et al.), wherein it is believed that the requirement for the deposit of the biological materials cA2 antibodies under 35 USC § 112, first paragraph, enablement, had been satisfied.

Applicant is ivited to clarify whether the cA2 antibody has been deposited for patent purposes or not.

The examiner will also check into this matter concerning the deposit of the cA2 in U.S. patents that claim the cA2 antibody.

In contrast to applicant's assertions and reliance upon the disclosure of the instant specification and In re Wands 8 USPQ2d 1400 (Fed. Cir. 1988), it is apparent that the cA2 antibody is required to practice the claimed invention. As a required element, it must be known and readily available to the public or obtainable by a repeatable method set forth in the specification. If it is not so obtainable or available, the enablement requirements of 35 USC 112, first paragraph, may be satisfied by a deposit of the appropriate cell line / hybridoma which produces this antibody. See 37 CFR 1.801-1.809.

Again, amendment of the specification to recite the date of deposit and the complete name and address of the depository is required. As an additional means for completing the record, applicant may submit a copy of the contract with the depository for deposit and maintenance of each deposit.

It is noted that the sequence of an entire immunoglobulin satisfies the biological deposit of said immunoglobulin. Note that satisfaction for the biological deposit of the specific cA2 antibody requires the disclosure and recitation of its entire amino acid sequence and not based upon partial sequences.

Therefore, in order to satisfy the enablement requirements under U.S.C. § 112, first paragraph, with respect to the cA2 antibody with respect to claims 1, 3-5, and 11-13, either satisfying the deposit of the appropriate cell line that produces the cA2 antibody or providing the sequence of the entire immunoglobulin is required.

5. Claims 1, 3-5 and 11-13 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 3-5, and 11-13 are indefinite in the recitation of "cA2" antibody because its characteristics are not known. The use of "cA2" antibody as the sole means of identifying the claimed antibody renders the claims indefinite because this designation is merely a laboratory designation which does not clearly define the claimed product, since different laboratories may use the same laboratory designation to define completely distinct cell lines.

Amending the claims to recite the appropriate ATCC Accession Numbers or the appropriate SEQ ID NOS. of the entire cA2 antibody would obviate this rejection.

Given the number of patents from the priority documents, applicant is invited to make a positive statement that the claimed cA2 antibody is the same cA2 antibody deposited by the appropriate ATCC Accession Numbers or set forth in the appropriate SEQ ID NOS. of the entire cA2 antibody would obviate this rejection.

If the intent of the recitation of cA2 is not a specific antibody but reflects a TNF specificity, then applicant is required to amend the claims to recite an ATCC Accession Number or the appropriate SEQ ID NOS. that define the cA2 to obviate this rejection.

Applicant's arguments, filed 2/27/04, have been fully considered but are not found convincing essentially for the reasons of record.

Given the ambiguity indicated above concerning satisfying the deposit of the cA2 antibody in U.S. Patents addressed above, this rejection is maintained.

If the deposit requirements for the cA2 antibody has been satisfied and applicant is clearly indicating the instant claims are drawn to the very same cA2 antibody as recited in the U.S. patents, then this rejection will be withdrawn.

Until then, applicant's reliance on published articles does not satisfy the requirement that cA2 particularly points out and distinctly claims the particular anti-TNF cA2 antibody asserted by applicant.

Even if the deposit requirements under 35 USC 112, first paragraph, have been satisfied, applicant is invited to amend the claims to recite the appropriate deposit accession number for clarity.

Applicant should specifically point out the support for any amendments made to the disclosure. See MPEP 714.02 and 2163.06

6. Claims 1-2, 5 and 11-12 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Adair et al. (U.S. Patent No. 5,994,510) (see entire document).

Applicant's arguments, filed 2/27/04, have been fully considered but are not found convincing essentially for the reasons of record.

As indicated above, applicant's reliance upon the priority date of priority application USSN 07/670,827, filed 3/18/91, has not been found convincing with respect to the treatment of psoriasis with anti-TNF antibodies that compete with cA2.

In addition, applicant argues that the prior art does not teach every limitation of the claimed invention, including the cA2 specificity as well as high binding affinity and potent inhibiting affinity for TNFα.

As indicated previously, Adair et al. teach methods of inhibiting patients suffering disorders associated with undesirably high levels of TNF, including psoriasis (e.g. see columns 1-12, including column 11, line 52) with TNFα-specific antibodies, including recombinant chimeric and humanized antibodies(e.g., columns 5-12), including the use of IgG1 (e.g. column 9, paragraph 3) (see Detailed Description of the Invention) (see entire document).

It was acknowledged that the reference does not disclose that the "anti-TNF antibody competitively inhibits binding of TNF to monoclonal antibody cA2" or "anti-TNF antibody binds to at least one epitope included in amino acids between 87-108 or both 59-80 or 87-108 of SEQ ID NO: 1 of hTNF" of the claimed antibody specificity in the claimed methods to treat psoriasis.

Also, it was indicated previously; given the properties of the prior art TNFα-specific antibodies which include antibodies that neutralize TNF, including reducing or inhibiting a biological activity of human TNFα as measured by an in vitro or in vivo bioassay (e.g. see Summary of the Invention in column 5) as well as the referenced methods of inhibiting patients suffering disorders associated with undesirably high levels of TNF, including psoriasis (e.g. see columns 1-12, including column 11, line 52) with TNFα-specific antibodies;

the claimed functional limitations of "anti-TNF antibody competitively inhibits binding of TNF to monoclonal antibody cA2" or "anti-TNF antibody binds to at least one epitope included in amino acids between 87-108 or both 59-80 or 87-108 of SEQ ID NO: 1 of hTNF" would be inherent properties of the referenced methods to treat psoriasis with TNFα-specific antibodies.

Applicant was invited to distinguish the prior art TNFα-specific antibodies and the presently claimed TNFα-specific antibodies in methods of treating psoriasis. The Office is not equipped to make such comparisons.

While applicant relies upon the different properties of anti-TNF antibodies, the instant claims are broadly drawn to the use of anti-TNF antibodies that compete with the anti-TNF cA2 antibody and not to the use of anti-TNF antibodies that bind a specific epitope or have a specific set of properties.

The arguments of counsel cannot take the place of evidence in the record. In re Schulze , 145 USPQ 716, 718 (CCPA 1965). See MPEP 716.01(C).

In the absence of objective evidence to the contrary, the prior art rejection is maintained given the inhibitory and therapeutic properties of the prior art TNFα-specific antibodies, which appear to be consistent with the claimed antibodies that compete with the anti-TNF cA2 antibody.

Applicant's arguments have not been found persuasive.

7. Claims 1, 3-5 and 7-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Adair et al. (U.S. Patent No. 5,994,510) in view of Le et al. (WO 92/16553) for the reasons of record.

As indicated above, applicant's reliance upon the priority date of priority application USSN 07/670,827, filed 3/18/91, has not been found convincing with respect to the treatment of psoriasis with anti-TNF antibodies that compete with cA2.

Therefore, the rejection of record is maintained for the reasons of record and reiterated herein for applicant's convenience.

Adair et al. teach methods of inhibiting patients suffering disorders associated with undesirably high levels of TNF, including psoriasis (e.g. see columns 1-12, including column 11, line 52) with TNFα-specific antibodies, including recombinant chimeric and humanized antibodies (see Detailed Description of the Invention) (see entire document).

Adair et al. differs from the claimed methods by not disclosing "anti-TNF antibody competitively inhibits binding of TNF to monoclonal antibody cA2" or "anti-TNF antibody binds to at least one epitope included in amino acids between 87-108 or both 59-80 or 87-108 of SEQ ID NO: 1 of hTNF" as the anti-TNFα antibody specificities employed in the claimed methods.

Le et al. (WO 92/16553) teach methods of treating autoimmune disorders with anti-TNFα antibody, including the cA2 anti-TNFα antibody specificity and including its epitopic specificity (e.g. pages 9-10, overlapping paragraph; page 13, paragraph 1; page 15, page 20; page 22) (see entire document, including Summary of the Invention, Detailed Description of the Preferred Embodiments and Examples).

Given the inhibitory properties of the cA2 TNFα-specific antibodies taught by Le et al., one of ordinary skill in the art at the time the invention was made would have been motivated to substitute the cA2 anti-TNFα antibody specificity into the methods of treating psoriasis with TNFα-specific antibodies taught by Adair et al. From the teachings of the references, it was apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

The references differ from the claimed methods by not disclosing the well known use of human antibodies in human therapy.

Given the well known use of therapeutic antibodies that have decreased immunogenicity to overcome neutralizing effects of the immune response in human patients, it had been well accepted practice by the ordinary skill in the art at the time the invention was made to employ therapeutic antibodies will decreased immunogenicity, such as chimeric antibodies, humanized antibodies, as taught above as well as human antibodies. One of ordinary skill in the art human antibodies, one of ordinary skill in the art at the time the invention was made would have been motivated to modify the anti-TNFα antibodies or the cA2-specific anti-TNFα antibodies by making them human to decrease immunogenicity in the methods of treating psoriasis with TNFα-specific antibodies taught by Adair et al. From the teachings of the references, it was apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

8. No claim allowed.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Gambel whose telephone number is (571) 272-0844. The examiner can normally be reached Monday through Thursday from 7:30 am to 6:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (571) 272-0841.

The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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June 14, 2004